Gaming Issues
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A few issues and assumptions came up yesterday that require some additional discussion:

WQCP Impacts.

We have yet to get much guidance on how the b(2) accounting might change as new actions are taken or new infrastructure comes on line. Of particular concern is how to account for the impacts of the WQCP on the CVP (since those costs are automatically assessed against b(2).

Numerous changes to the 1995 WQCP (and its implementation) are envisioned as a part of CALFED. The VAMP experiment would set stricter limits on export rates during April and May. The JPOD would allow the CVP to regain access to the SWP pumps (the CVP used to have a limited JPOD right under D 1485, but lost it in the 1995 WQCP). The COE might allow as much as 10.3 kcfs to be pumped at banks on a routine basis during Stage 1. And, of course, new infrastructure, such as storage facilities will have an impact on CVP operations.

The question, then, is how to assess the costs of the WQCP to the CVP when both the standards and the basic infrastructure will be changing over time. I am not sure of the answer, but the answer cannot simply be *ad hoc* – we need a general policy. The question is important, in that VAMP would be very costly to the b(2) account, while including JPOD would reduce the amount of water deducted from b(2).

In gaming scenarios 1a and 1b last month, we assumed that the deduction from b(2) was simply operations under the 1995 WQCP minus operations under D 1485. That is, the b(2) account would pay for VAMP, but would not get any credit for JPOD. This seems inconsistent to me. If the feds have agreed to share to cost of meeting the WQCP (under the water rights decision), and then the WQCP is implemented in a different way, then it seems to me that the impacts on b(2) should reflect all the changes or none of them. Either both VAMP and JPOD impacts should be included as b(2) costs or neither of them should.

The facilities issue is a bit more grey. The same argument can be made, but now what is changing is not the implementation of the WQCP, but rather project operations.

We need policy guidance from the feds. If that guidance is not forthcoming, I suggest that we include VAMP and JPOD in the WQCP for purposes of calculating impacts, but that we treat new facilities as outside the WQCP for purposes of WQCP impacts.

The CVP Allocation Process

I have mentioned this before, but we have yet to resolve the issue. *DWRSIM does not reflect the reality of b(2) export cuts in its allocation algorithm.* As we have seen this year, the fact that b(2) export cuts are likely to be made during the spring period (February – June) is causing the CVP to reduce allocations below what we would have expected in the past. The cut in allocations does not necessarily correspond to the actual reduction in exports caused by the b(2) water. In many years, the CVP will be able to delivery more than it has allocated. However, we may not know that additional water is available until July, by which time there may be no takers within the CVP.

This is both a substantive problem and a gaming problem. I won't deal with the substantive problem in detail, since it will be dealt with elsewhere. The solution to the problem probably involves a combination of additional storage south of the Delta to help reduce delivery uncertainty and institutional mechanisms to provide insurance for those years in which the CVP cannot meet a more aggressive allocation.

The problem for gaming is that we may end up underestimating the impacts of b(2) on export deliveries. If we have a b(2) impact in March on San Luis storage levels, but are able to recover this lost pumping in July and August, can we really say that we have eliminated the b(2) impacts on deliveries? No, unless the CVP made aggressive allocations based upon the expectation that all b(2) impacts would be made up before the end of the growing season. This implies that we need a modification to DWRSIM to account for the reduced CVP allocations. These allocations are not deductions against b(2), but merely anticipate b(2) export reductions. Then, to the extent that we can bring assets on line during the game that would allow increased allocations, we can claim an improvement in export supplies (e.g., a groundwater storage facility or water purchase option could give the CVP the confidence to increase allocations). What we cannot do is simply look at total exports during the year in the game and compare them to the baseline exports.

B(1) vs b(2)

In our last set of gaming (1a. and 1b) we assessed that all reductions in exports against the b(2) account, even when the actions were clearly b(1) type actions. In particular, in situations where it was obvious that San Luis Reservoir was going to fill, we docked the b(2) account for export reductions. We took a slightly different tack yesterday, during our preliminary discussion of how to regame 1a. and 1b. In 1981, we agreed to export reductions made despite the near certainty of filling San Luis were really b(1) actions, not chargable to b(2). Nevertheless, this remains a grey area. We should seek to get more policy guidance on this issue. However, for now, I would propose that when San Luis is more than 90% likely to fill, we treat export reductions as b(1) type actions.